

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A device for generating tunable light pulses comprising:

(a) a pulse laser light source for producing femtosecond light pulses having an optical spectrum and a temporal frequency progression ("chirp");

(b) an adjustable optical compressor for changing the chirp of the light pulses output from the pulse laser light source; and

(c) a non-linear optical fiber for modifying the optical spectrum of the femtosecond light pulses and for tuning the generated light pulses coupled out of the non-linear optical fiber to the desired wavelength in accordance with the chirp of the light pulses received from the adjustable optical compressor, said optical fiber taking advantage of solitonic effects, and

— (c) an optical compressor preceding said non-linear optical fiber.

Claim 2 (original): The device according to claim 1, wherein the light pulses coupled into said non-linear optical fiber have a pulse energy of at least one nanojoule.

Claim 3 (canceled).

Claim 4 (previously presented): The device according to claim 1, wherein said non-linear optical fiber maintains polarization or is dispersion-shifted.

Claim 5 (original): The device according to claim 1, wherein said non-linear optical fiber has a core diameter of less than five micrometers.

Claim 6 (original): The device according to claim 1, wherein said non-linear optical fiber comprises a microstructured photonic fiber.

Claim 7 (original): The device according to claim 1, wherein said non-linear optical fiber has a length of less than one meter.

Claim 8 (original): The device according to claim 1, further comprising an additional optical compressor following said non-linear optical fiber.

Claim 9 (original): The device according to claim 1, further comprising an optical measuring instrument for characterization of the light pulses modified by means of said non-linear optical fiber.

Claim 10 (new): A method for generating tunable light pulses, the method comprising:

- (a) producing femtosecond light pulses having an optical spectrum and a temporal frequency progression ("chirp");
- (b) regulating the chirp of the femtosecond light pulses;
- (c) inputting the light pulses into a non-linear optical fiber in order to generate output light pulses having a modified optical spectrum due to non-linear soliton effects occurring in the optical fiber, wherein the spectrum of the output light pulses is tuned in accordance with the regulated chirp of the input light pulses.

Claim 11 (new): A method for generating tunable light pulses, the method comprising:

- (a) producing femtosecond light pulses having an optical spectrum and a temporal frequency progression ("chirp") by means of a pulse laser light source;
- (b) regulating the chirp of the femtosecond light pulses by means of an optical compressor;
- (c) inputting the light pulses into a non-linear optical fiber in order to generate frequency-shifted output light pulses, the frequency shift depending on the predetermined chirp of the input light pulses.